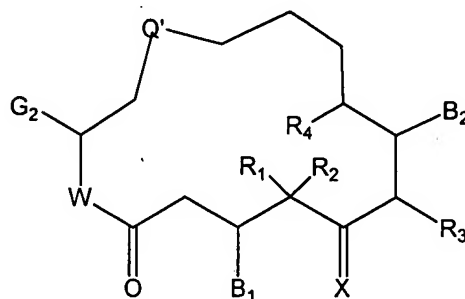


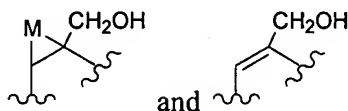
AMENDMENTS TO THE CLAIMS

1(original). A method for the preparation of at least one 26-hydroxyepothilone of formula:

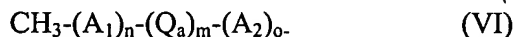


where:

Q' is selected from the group consisting of



G₂ is the following formula (VI)



A₁ and A₂ are independently selected from the group of optionally-substituted (C₁-C₃)alkylene and (C₂-C₃)alkenylene;

Q_a is an optionally-substituted ring system containing one to three rings and at least one carbon to carbon double bond in at least one ring;

n, m, and o are integers independently selected from the group consisting of zero and 1, where at least one of m or n or o is 1;

W is O or NR₆;

X is selected from the group consisting of O, and H, OR₇;

M is O, S, NR₈, or CR₉R₁₀;

B₁ and B₂ are selected from the group consisting of -OR₁₁ and -OC(=O)R₁₂;

R₁-R₄ and R₁₂-R₁₇ are selected from the group consisting of H, alkyl, substituted alkyl, aryl, and heterocyclo, except R₁₅ is not hydrogen, and when R₁ and R₂ are alkyl, they can be joined to form a cycloalkyl;

R₆ is selected from the group consisting of H, alkyl, and substituted alkyl;

R₇ and R₁₁ are selected from the group consisting of H, alkyl, substituted alkyl, trialkylsilyl, alkyldiarylsilyl, and dialkylarylsilyl;

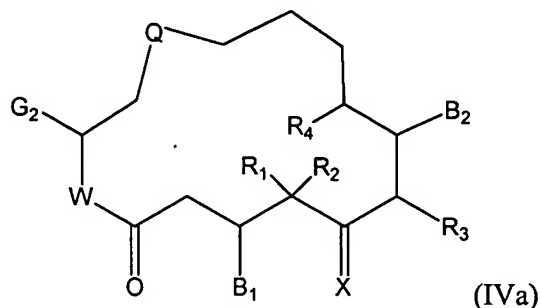
R₈ is selected from the group consisting of H, alkyl, substituted alkyl, R₁₃C(=O)-, R₁₄OC(=O)-, and R₁₅S(O)₂-; and

R_9 and R_{10} are selected from the group consisting of H, halogen, alkyl, substituted alkyl, aryl, heterocyclo, hydroxy, $R_{16}C(=O)-$, and $R_{17}OC(=O)-$;

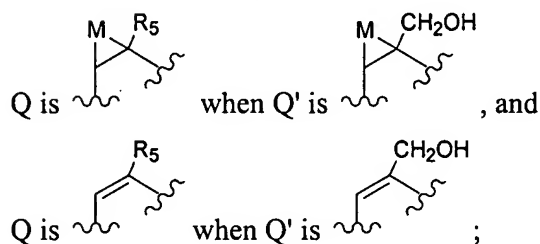
the pharmaceutically-acceptable salts thereof and any hydrates, solvates, or geometric, optical and stereoisomers thereof;

comprising the steps of:

a) contacting at least one epothilone of formula IVa



where:



R_5 is $-CH_3$; and

W, X, G_2 , M, B_1 , B_2 , R_1 - R_4 , and R_6 - R_{17} are defined above;

the pharmaceutically-acceptable salts thereof and any hydrates, solvates, or geometric, optical and stereoisomers thereof;

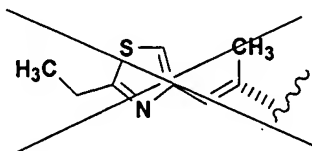
with a microorganism or enzyme derived therefrom capable of selectively catalyzing the hydroxylation of said R_5 group to $-CH_2OH$; and

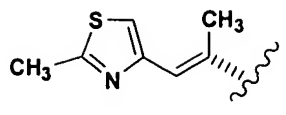
b) effecting said hydroxylation.

2(original). The method of claim 1 wherein n is zero and m is 1.

3(original). The method of claim 1 wherein n is zero, m is 1, and A_2 is alkenyl.

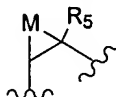
4(currently amended). The method of claim 1 wherein G_2 is



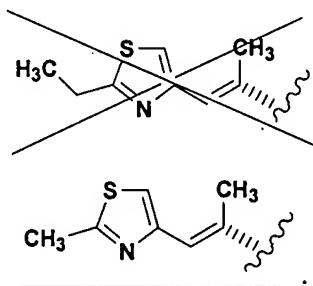


5(original). The method of claim 1 wherein said microorganism is *Amycolata autotrophica* ATCC 35203.

6(original). The method of claim 1 wherein Q is



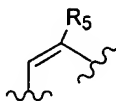
7(currently amended). The method of claim 6 wherein G₂ is



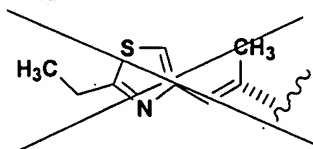
8(original). The method of claim 7 wherein said epothilone of formula IVa is epothilone B and said 26-hydroxyepothilone is 26-hydroxyepothilone B.

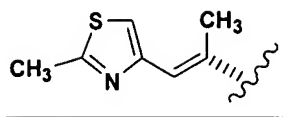
9(original). The method of claim 8 wherein said microorganism is *Amycolata autotrophica* ATCC 35203.

10(original). The method of claim 9 wherein said Q is



11(currently amended). The method of claim 10 wherein G₂ is





12(original). The method of claim 11 wherein said epoxythilone of formula IVa is epoxythilone D and said 26-hydroxyepoxythilone is 26-hydroxyepoxythilone D.

13(original). The method of claim 12 wherein said microorganism is *Amycolata autotrophica* ATCC 35203.

14(original). A method for the preparation of a mixture of epoxythilone F and 26-hydroxyepoxythilone B comprising the steps of:

- a) contacting epoxythilone B with a microorganism or enzyme derived therefrom capable of catalyzing the hydroxylation of said epoxythilone B to epoxythilone F and 26-hydroxyepoxythilone B; and
- b) effecting said hydroxylation.

15(original). The method of claim 14 wherein said microorganism is *Amycolata autotrophica* ATCC 35203.

16(original). An isolated microorganism, or a mutant or variant thereof, having ATCC accession number PTA-1043.

17(original). A biologically pure culture of a microorganism, or a mutant or variant thereof, having ATCC accession number PTA-1043.